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EXAMINER

O NEILL, GARY W

ART UNIT

PAPER NUMBER

2873

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/930,369

Applicant(s)

KORMOS ET AL

Examiner

Gary O'Neill

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 18-30 is/are rejected.
- 7) ☒ Claim(s) 10-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Detailed Action

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 18 and 29 are objected to because of the following informalities: In lines 3 and 5 respectively of the claims, the phrase "light from externally of" appears to employ inconsistent grammatical usage. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 6, 8, 19 - 22, 25, 27, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Oikawa et al. (5504622)

Oikawa et al. discloses, as in claim 1, an apparatus (fig.8) comprising a head-up display, said head-up display including: an image source (Q) which outputs radiation (P1,P2) representing a visible image (17); and optical structure (18) for directing the radiation from said image source to a viewing location (10), said optical structure including first (18a) and second (18b) reflective surfaces having first and second reflection characteristics (col.5, lines 1-16) which are different, and being selectively operable (col.5, lines 17-36, adjust position) in one of first and second modes, said first mode including reflection of radiation from said image source by said first reflective

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surface according to said first reflection characteristic (col.5, lines 1-16, large), and said second mode including reflection of radiation from said image source by said second reflective surface according to said second reflection characteristic (col.5, lines 1-16, small).

Oikawa et al. discloses, as in claim 2, an apparatus wherein said second reflection characteristic involves a smaller area of reflection than said first reflection characteristic (col.5, lines 1-16).

Oikawa et al. discloses, as in claim 3, an apparatus wherein said first reflection characteristic involves a greater degree of magnification than said second reflection characteristics (col.5, lines 38-59, inherent in as a whole, same magnifying power).

Oikawa et al. discloses, as in claim 6, an apparatus wherein said first reflection characteristic involves a higher degree of magnification than said second reflection characteristic (col.5, lines 1-16).

Oikawa et al. discloses, as in claim 8, an apparatus (fig.8) wherein radiation (P1) which reaches said viewing location (10) in said first mode according to said first reflection characteristic has been reflected by said first reflective surface (18a) but is free of reflection by said second reflective surface (18b); and wherein radiation (P2) which reaches said viewing location (11) in said second mode according to said second reflection characteristic has been reflected by said second reflective surface (18b) but is free of reflection by said first reflective surface (18a).

Oikawa et al. discloses, as in claim 19, an apparatus including a vehicle (col.3, lines 1-15), said head-up display being a part of said vehicle, and a windshield (2) of

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said vehicle serving as a reflective surface which is a part of said optical structure (col.5, lines 38-47).

Oikawa et al. discloses, as in claim 20, a method of operating a head-up display (fig.8), comprising the steps of using an image source (Q) to output radiation (P1,P2) which represents a visible image (17); providing first (18a) and second (18b) reflective surfaces respectively having first and second reflection characteristics (col.5, lines 1-16) which are different; and directing the radiation from said image source to a viewing location (10) according to a selected one (col.5, lines 17-36, adjust position) of first and second modes, said first mode including reflection of radiation from said image source by said first reflective surface according to said first reflection characteristic (col.5, lines 1-16, large), and said second mode including reflection of radiation from said image source by said second reflective surface according to said second reflection characteristic (col.5, lines 1-16, small).

Oikawa et al. discloses, as in claim 21, a method including the step of configuring said second reflection characteristic to utilize a smaller area of reflection than said first reflection characteristic (col.5, lines 1-16).

Oikawa et al. discloses, as in claim 22, a method including the step of configuring said first reflection characteristic to have a higher degree of magnification than said second reflection characteristic (col.5, lines 38-59, inherent in as a whole, same magnifying power).

Oikawa et al. discloses, as in claim 25, a method including the step of configuring said first reflection characteristic to involve a higher degree of magnification than said second reflection characteristic (col.5, lines 1-16).

Oikawa et al. discloses, as in claim 27, a method (fig.8) including the steps of causing radiation (P1) traveling to said viewing location (10) in said first mode according to said first reflection characteristic to be reflected by said first reflective surface (18a) but to be free of reflection by said second reflective surface (18b); and causing radiation traveling to said viewing location (11) in said second mode according to said second reflection characteristic to be reflected by said second reflective surface (18b) but to be free of reflection by said first reflective surface.

Oikawa et al. discloses, as in claim 30, a method including the step of providing said head-up display in a vehicle having a windshield (2); and wherein said directing step includes the step of using an inner surface (5) of said windshield to reflect radiation from said image source in each of said first and second modes of operation (fig.8).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 4, 5, 7, 9, 18, 23, 24, 26, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oikawa et al. (5504622) as applied to claims 1 and 20 above, and further in view of Stringfellow et al. (5361165)

Oikawa et al. discloses the claimed invention as cited above except for the features of reflective surfaces having higher and lower reflectivity characteristics; movement of the reflective surfaces between two positions, and minimization of reflected ambient light.

Within the same field of endeavor (vehicle head-up displays), Stringfellow et al. discloses (fig.7) pivotal movement (72) of an apparatus having dual characteristic (58,44) reflective surfaces and glare shielding (74).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide the pivotal movement for dual reflective characteristic surfaces and glare minimization of Stringfellow et al. with the head-up information image display of Oikawa et al. for the purpose of providing easy to read display information for drivers having multi-positional modes of operation (Stringfellow et al. col.1, lines 34-55 & col.5, lines 19-32).

Stringfellow et al. discloses as in claim 4, an apparatus wherein said second reflection characteristic (58, reflective aluminum) involves reflection with a higher degree of reflectivity than said first reflection characteristic (44, opaque).

Stringfellow et al. discloses, as in claim 5, an apparatus wherein said second reflection characteristic (58, reflective aluminum) involves reflection with a higher degree of reflectivity than said first reflection characteristic (44, opaque).

Stringfellow et al. discloses, as in claim 7, an apparatus wherein said second reflection characteristic (58, reflective aluminum) involves reflection with a higher degree of reflectivity than said first reflection characteristic (44, opaque).

Stringfellow et al. discloses, as in claim 9, an apparatus including a part (40) which has said first and second reflective surfaces thereon, and which is supported for movement between first and second positions, said part being in said first position in said first mode and being in said second position in said second mode (fig.7).

Stringfellow et al. discloses, as in claim 18, an apparatus wherein said first and second reflective surfaces are each configured to minimize an amount of ambient light from externally (74) of said head-up display which is reflected thereby in a direction toward said image source (fig.7).

Stringfellow et al. discloses, as in claim 23, a method including the step of configuring said second reflection characteristic (58, reflective aluminum) to involve a higher degree of reflectivity than said first reflection characteristic (44, opaque).

Stringfellow et al. discloses, as in claim 24, a method including the step of configuring said second reflection characteristic (58, reflective aluminum) to involve a higher degree of reflectivity than said first reflection characteristic (44, opaque).

Stringfellow et al. discloses, as in claim 26, a method including the step of configuring said second reflection characteristic (58, reflective aluminum) to involve a higher degree of reflection than said first reflection characteristic (44, opaque).

Stringfellow et al. discloses, as in claim 28, a method including the steps of providing said first and second reflective surfaces on opposite sides of a part (40) which



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is supported for movement between first and second positions; and positioning said part in said first position during said first mode and in said second position during said second mode (fig.7).

Stringfellow et al. discloses, as in claim 29, a method wherein said step of providing said first and second reflective surfaces includes the step of configuring each of said first and second reflective surfaces so as to minimize an amount of ambient light from externally (74) of said head-up display which is reflected thereby in a direction toward said image source (fig.7).

#### ***Allowable Subject Matter***

6. Claims 10-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the claims, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in claims 10-17, wherein the claimed invention comprises a dual position, dual mode apparatus having a visible radiation transmissive supported part with two angled reflective surfaces on opposite sides wherein radiation from the image source travels in different directions from each of the reflective surfaces, each surface

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having different optical prescriptions, reflective and absorptive coatings, and differing magnifications, as claimed.


### **Conclusion**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are being cited for disclosing reflective vehicle display systems having various reflective characteristics and beam splitting: Makita et al. (5289315); Stringfellow et al. (5361165); Oikawa et al. (5504622); Hutzel et al. (2002/0005999); and Stringfellow (6359737).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary O'Neill whose telephone number is 703-306-4828. The examiner can normally be reached on Monday - Thursday, 6:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y Epps can be reached on 703-308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7725 for regular communications and 703-308-7725 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
EVELYN LESTER  
RECEIVED EXAMINER

Gary O'Neill  
Examiner  
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